

TILE INSTALLED ON INTERIOR/EXTERIOR CEMENT MORTAR BED ON CONCRETE SLAB

310F-2019-2021

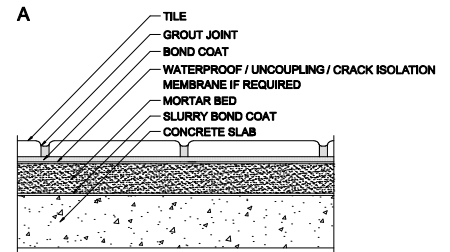
DETAIL A

SUITABLE SUBSTRATES

- Floor systems over which the tile will be installed shall be in conformance with the Canadian National Building Code 2015 and applicable local building codes taking into consideration anticipated live and dead loads.

MATERIALS

- TILE
- BOND COAT – **Interior:** Portland cement slurry on concrete slab and on fresh mortar bed. Dry-set mortar (minimum acceptable standard ANSI A118.1 or ISO 13007 C1), latex-Portland cement mortar (minimum acceptable standard ANSI A118.4 or ISO 13007 C2S1), or modified epoxy emulsion mortars (minimum acceptable standard ANSI A118.3 or ISO 13007 R1), over mortar bed, cured for minimum of 24 hours. 100% solids epoxy mortar on mortar bed, cured a minimum of 7 days. **Exterior:** Single or two component liquid latex-Portland cement mortar (minimum acceptable standard ANSI A118.4 or ISO 13007 C2S1).
- GROUT – **Interior:** Portland cement, latex-Portland cement (minimum acceptable standard ANSI A118.6 or ISO 13007 CG1) or epoxy grouts (minimum acceptable standard ANSI A118.3 or ISO 13007 RG). **Exterior:** Latex-Portland cement.



APPLICATION

- Apply mortar bed (see Tile Guide Specification Section Mixes 2.9.2.5) to required thickness over fresh slurry bond coat (see Tile Guide Specification Section Mixes 2.9.2.2). Finished tolerance of mortar bed not to exceed 6 mm in 3000 mm or 2 mm in 300 mm. For large format tile where any side is greater than 380 mm surface variation should not exceed 3 mm in 3000 mm and 1.5 mm in 600 mm. For tile with any edge longer than 380 mm use sufficient bond coat to ensure minimum 95% contact, with the corners and edges fully supported. Apply bond coat to mortar bed surface. Use proper notched trowel to ensure adequate bond. Place the tiles firmly into the wet bond coat. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and to help achieve maximum coverage. Ensure proper contact between mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage. Use sufficient bond coat to ensure minimum 95% contact on exterior installations and wet areas (it may be necessary to back-butter the tile in order to meet this requirement) and minimum 80% on interior dry areas. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting. Allow bond coat to cure. Force grout into the joints with a rubber grout float. Make sure all joints are well-compacted and free of voids and gaps. Remove excess grout from the tile surface and clean.

LIMITATIONS

- Manufacturer's recommendations must be followed.
- The thickness of the mortar bed should be 32 mm minimum interior and 38 mm minimum exterior.
- Use method 309F-2019-2021 for precast floor systems, post tensioned concrete floor systems and other floors subject to movement or deflection.

OTHER CONSIDERATIONS

- Latex additive is recommended for Portland cement bond coat, and may be used in modification of mortar bed. Follow manufacturer's recommendations.
- Tile used on exterior applications must be frost resistant.
- For industrial and chemical resistant floors use the appropriate setting and grouting materials as per manufacturer's recommendations. Must meet extra heavy duty rating. See page 31.
- Refer to Notes For The Professional and 301MJ-2019-2021.
- If installation is over an occupied living space, use Detail 325ED-2019-2021 Detail A.
- Waterproofing membrane if required must be specified. (ANSI A118.10) Follow manufacturer's recommendations.
- For moderate commercial to industrial applications for tile that are larger than 300 mm x 300 mm, a minimum of 95% coverage must be achieved.
- Membrane – follow manufacturer's recommendations for appropriate mortars.

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